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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/825,340

04/15/2004

Kiyoaki Tsuji

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EXAMINER

CHEN, CHIA WEI A

ART UNIT

PAPER NUMBER

2622

MAIL DATE

DELIVERY MODE

09/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/825,340	TSUJI ET AL.	
	Examiner	Art Unit	
	Chia-Wei A. Chen	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

9/9/04

- 1) ☒ Responsive to communication(s) filed on ~~10/15/2004~~.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/2/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The references listed on the Information Disclosure Statement filed on 4/2/2007 have been considered by the examiner (see attached PTO/SB/08).

Drawings

3. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohta et al. (US 6,164,842).

As to claim 1, Ohta et al. discloses, in figure 1, a lens barrier mechanism comprising:

- a lens tube (6);
- a lens barrier (17 and 18) rotated in a direction orthogonal to an optical axis of an image pickup lens exposed from a front part of the lens tube for opening/closing the front part of the lens tube (col. 5, lines 10-16, Fig. 1);
- a first energizing member (spring 20) for rotationally energizing the lens barrier;
- a slider (16) engaged with the lens barrier and sliding in a direction of the optical axis of the image pickup lens, thereby regulating rotation of the lens barrier (col. 5, lines 29-33);
- a second energizing member (spring 22) for energizing the slider so as to rotate the lens barrier in a direction opposite to an energizing direction of the first energizing member (col. 7, lines 7-11); and
- a sliding mechanism for moving the slider (guide groove 6d, col. 7, lines 31-42) .

As to claim 2, Ohta et al. teaches the lens barrier mechanism as claimed in claim 1, wherein the sliding mechanism moves the slider in a direction opposite to an energizing direction of the second energizing member and rotates the lens barrier in the energizing direction of the first energizing member, thereby opening or closing the front part of the lens tube, and wherein the sliding mechanism moves the slider in the energizing

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direction of the second energizing member and rotates the lens barrier in the direction opposite to the energizing direction of the first energizing member by the energizing force of the second energizing member, thereby closing or opening the front part of the lens tube (col. 8, lines 14-21, col. 11, lines 28-34).

As to claim 3, Ohta et al. teaches the lens barrier mechanism as claimed in claim 2, wherein the first energizing member rotationally energizes the lens barrier in a direction of closing the front part of the lens tube, and the second energizing member energizes the slider toward the front part of the lens tube (springs 20 and 21 close the lens barrier; col. 9, lines 11-15) (driver 13 pushes the sliding member 16 forwards; col. 9, lines 30-38).

As to claim 4, Ohta et al. teaches the lens barrier mechanism as claimed in claim 2, wherein the sliding mechanism has an engagement member for engaging a rotary motor with the slider, and the engagement member drives the rotary motor (zoom motor) to move the slider in the direction of the optical axis of the image pickup lens (zoom motor extends the lens unit, along with the sliding mechanism, along the optical axis of the image pickup lens; col. 8, lines 22-28).

As to claim 5, Ohta et al. teaches the lens barrier mechanism as claimed in claim 1, wherein the second energizing member comprises a toggle spring (biasing spring 22, col. 7, lines 7-11).

As to claim 6, Ohta et al. teaches the lens barrier mechanism as claimed in claim 5, further comprising a slide cam (rotary ring 19) that is manually operated, wherein the toggle spring keeps energizing the slide cam in an operating direction (rotational ring biasing spring 22 biases the rotary ring 19; col. 14, lines 3-26).

As to claim 7, Ohta teaches, in figure 1, a lens barrier mechanism comprising:

- a lens tube (6);
- a lens barrier (17 and 18) rotated in a direction orthogonal to an optical axis of an image pickup lens exposed from a front part of the lens tube for opening closing the front part of the lens tube (col. 5, lines 10-16, Fig. 1); and
- an opening/closing mechanism (16) for opening/closing the lens barrier and turning on or off a main power (switch knob 14) of an image pickup apparatus, interlocked with the opening/closing of the lens barrier (switch knob 14 manipulates driver 13 which in turn manipulates sliding member 16; col. 7, line 50-col. 8, line 4).

As to claim 9, Ohta et al. teaches, in figure 1, an image pickup apparatus comprising:

- a lens tube (6);
- an image pickup lens (8) housed in the lens tube and exposed outward from a front part of the lens tube (col. 6, lines 47-53);

- a lens barrier (17 and 18) rotated in a direction orthogonal to an optical axis of the image pickup lens for opening/closing the front part of the lens tube (col. 5, lines 10-16, Fig. 1);
- a first energizing member (spring 20) for rotationally energizing the lens barrier;
- a slider (16) engaged with the lens barrier and sliding in a direction of the optical axis of the image pickup lens, thereby regulating rotation of the lens barrier;
- a second energizing member (spring 21) for energizing the slider so as to rotate the lens barrier in a direction opposite to the energizing direction of the first energizing member (col. 7, lines 7-11); and
- a sliding mechanism for moving the slider (guide groove 6d, col. 7, lines 31-42).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohta et al. (US 6,164,842) in view of Fujisaki (US 6,086,266).

Fujisaki teaches wherein the sliding mechanism has an engagement member for engaging a rotary motor with the slider, and the engagement member drives the rotary motor to move the slider in the direction of the optical axis of the image pickup lens.

As to claim 8, Ohta et al. teaches the lens barrier mechanism as claimed in claim 7, but does not teach wherein when the opening/closing mechanism is engaged with the lens barrier and rotated in an opening direction or closing direction of the lens barrier, the opening/closing mechanism is abutted against a main power switch of the image pickup apparatus and turns on the main power.

Fujisaki teaches wherein when the opening/closing mechanism (sliding cover 15) is engaged with the lens barrier and rotated in an opening direction or closing direction of the lens barrier, the opening/closing mechanism is abutted against a main power switch of the image pickup apparatus and turns on the main power (when sliding cover 15 is moved towards the open position, the main switch is turned on; col. 8, lines 25-31).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the sliding cover of Fujisaki with the mechanism of Ohta et al. to provide a simple sliding movement locking apparatus which prevents damage of the sliding cover if a forced operation occurs. (See col. 2, lines 31-33 of Fujisaki.)

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Baxter et al. (US 5,546,147) discloses a lens deployment mechanism for compact camera.

Wakabayashi (US 4,864,338) discloses a camera having partially retractable picture taking optical system with dust cover.

Ichino (US 5,761,556) discloses an optical apparatus.

Ito (US 5,950,028) discloses a camera with a lens barrier.

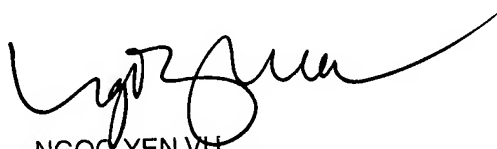
Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chia-Wei A. Chen whose telephone number is 571-270-1707. The examiner can normally be reached on Monday - Friday, 7:30 - 17:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NgocYen Vu can be reached on (571) 272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

cc
9/12/2007


NGOC-YEN VU
SUPERVISORY PATENT EXAMINER